

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002884**Date Inspected:** 03-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 2300**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 800**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Le Feng**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

New Tower Shop Bay 1:

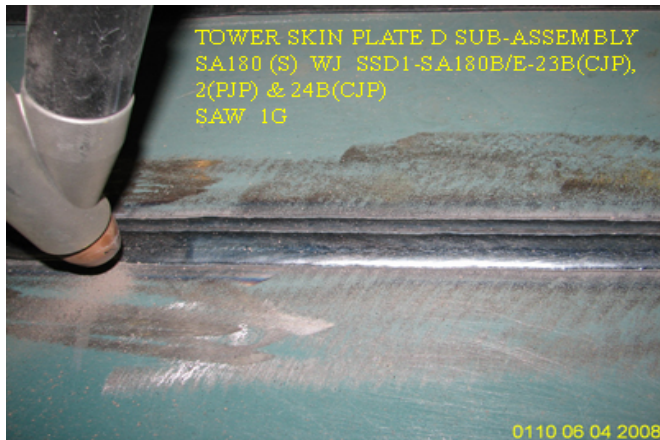
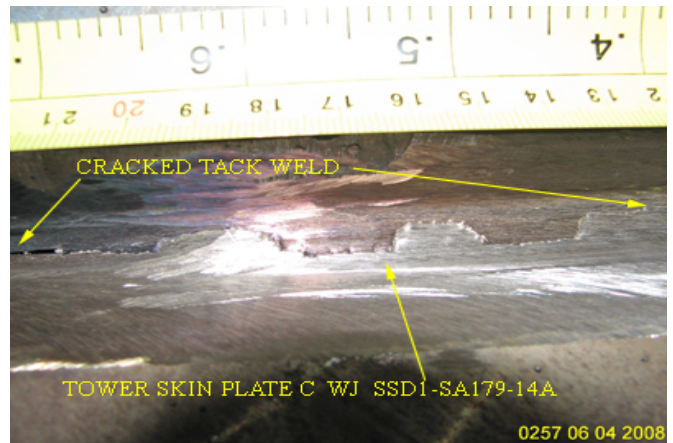
The QA Inspector randomly observed ZPMC welder Chen Hongxia ID Number 040460, utilizing the Submerged Arc Welding (SAW) Process in the 1G Position (Flat Groove) with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2221-B-U3c-S, to weld the fill pass in Weld Joint (WJ) SSD1-SA179B/E-11A(CJP) on Tower Skin Plate C Sub-Assembly SA179(S). The QA Inspector randomly observed ZPMC CWI Xu Le Feng monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 678 amps, 32.6 volts with a travel speed of 563 millimeters (mm) per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Yun Chuan Jin ID Number 0503060, utilizing the SAW Process in the 1G Position (Flat Groove) with ZPMC WPS WPS-B-T-2221-B-U3c-S, to weld the fill pass in WJ SSD1-SA180B/E-23B(CJP), 2(PJP) and 24B(CJP) Tower Skin Plate D Sub-Assembly SA180(S). The QA Inspector randomly observed ZPMC CWI Xu Le Feng monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 662 amps, 33.2 volts with a travel speed of 590 mm per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

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The QA Inspector randomly observed ZPMC welder Chen Hongxia ID Number 040460, setting up to utilize the SAW Process in the 1G Position (Flat Groove) with ZPMC WPS WPS-B-T-2221-B-U3c-S, to weld the root pass in WJ SSD1-SA179D/E-14A(CJP), 12(PJP) and 25A(CJP). The QA Inspector randomly observed ZPMC CWI Xu Le Feng visually examining the tack welds in the above WJ's and marking up several that had cracked while the pre-heat was being applied. The QA Inspector randomly observed Mr. Xu mark up the 1 tack in WJ 14A and the 1 tack weld in 25A along with 8 of the 32 tack welds in WJ 12. The QA Inspector randomly observed an additional cracked tack weld in WJ 12 and a cracked weld in the run off tab at the end of WJ 25A, which had propagated into the tack weld of WJ 25A. Mr. Xu informed the QA Inspector that no welding would be performed and that ZPMC QC would perform 100% Magnetic Particle (MT) Examination of all of the tack welds in the 3 WJ's, to be followed up by repairs. Mr. Xu informed the QA Inspector that this would be done during the day shift on 06-04-08. The attached photographs provide additional detail.



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Summary of Conversations:

There were no relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Franco,Charlie	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer
